ABSTRACT OF THE DISCLOSURE

[1076]   According to some embodiments, a Single-Instruction/Multiple-Data averaging operation is presented. The averaging operation averages multiple sets of data elements, for example, two data elements each from a first source and a second source, producing a set of averages. In at least one embodiment, in a first adder stage, a first plurality of data elements are added to a second plurality of data elements, generating a plurality of intermediate results. In a second adder stage, multiple different combinations of the plurality of intermediate results are added together, generating a plurality of sum results. The two least significant bits of each sum result are discarded.